

## CLAIMS

1. A nucleic acid molecule comprising:

a first nucleic acid sequence comprising an aptamer covalently linked to a second nucleic acid sequence comprising a biological effector sequence.

2. A nucleic acid molecule comprising:

a first nucleic acid sequence comprising an aptamer linked via Watson-Crick base pairing to a second nucleic acid sequence comprising a biological effector sequence.

3. The molecule of claim 1 or 2, further comprising a third nucleic acid sequence which is an aptamer that is covalently linked to said nucleic acid molecule.

4. The molecule of claim 1 or 2, further comprising a third nucleic acid sequence which is an aptamer that is linked via Watson-Crick base pairing to said nucleic acid molecule.

5. The molecule of claim 3 wherein said third nucleic acid sequence comprises an aptamer that is different from said first nucleic acid comprising an aptamer.

6. The molecule of claim 4 wherein said third nucleic acid sequence comprises an aptamer that is different from said first nucleic acid sequence comprises an aptamer.

7. The molecule of claim 1 or 2, comprising DNA and RNA.

8. The molecule of claim 1 or 2, wherein said biological effector sequence encodes a polypeptide or polynucleotide.

9. The molecule of claim 1 or 2, wherein said biological effector sequence comprises a messenger RNA.

10. The molecule of claim 8, wherein the coding sequence of said biological effector sequence comprises double-stranded DNA, and wherein said biological effector sequence comprises a promoter.
11. The molecule of claim 1 or 2, wherein said biological effector sequence comprises an antisense sequence.
12. The molecule of claim 1 or 2, wherein said biological effector sequence comprises a nucleic acid enzyme.
13. A nucleic acid molecule comprising a template for the assembly of the molecule of claim 1.
14. A cloning vector comprising the molecule of claim 1.
15. A cloning vector comprising the molecule of claim 11.
16. A composition comprising the molecule of claim 1 or 2 and a biologically acceptable carrier.
17. A composition comprising an admixture of a molecule of claim 1 or 2 and a cell that bears a target molecule for said aptamer.
18. A cell transfected with a nucleic acid molecule, wherein the nucleic acid molecule is chosen from the group: a molecule of claim 1 or 2, a molecule of claim 13, a vector of claim 14, and a vector of claim 15.
19. A method of introducing a biological effector sequence into a cell comprising contacting the molecule of claim 1 or 2 with a host cell.
20. A method of introducing a biological effector sequence into a cell using the molecule of claim 1 or 2, comprising administering said molecule to an organism.
21. The method of claim 20, which comprises administering to an organism a composition of claim 16.

22. A method of introducing a biological effector sequence into an organism, comprising:

introducing a biological effector sequence into a cell by contacting the molecule of claim 1 or 2 with a host cell, and administering said cell to an organism.